

Abstract

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b The present invention relates to a light scanning device for exciting and detecting secondary light, especially fluorescent light, on a sample, comprising a light emission device for emitting exciting light with a wavelength suitable for exciting secondary light on or in said sample, a focussing optics for focussing the exciting light on a subarea of said sample, a sample holding device for releasably holding the sample, a detection unit comprising a detection optics for the secondary light emitted by the sample in response to excitation and a detector device for converting the detected and imaged secondary light into electric signals. In the case of conventional known light scanning devices, scanning is carried out by means of a deflection unit consisting of tilting mirrors. Due to the long path of the light beam, positioning inaccuracies of the tilting mirrors result in major position inaccuracies of the scanning ray bundle on the surface of the sample. For avoiding this disadvantage of the prior art, the light scanning device according to the present invention makes use of a sample holding device which is adapted to be rotated for rotating the sample relative to the exciting light in such a way that different subareas of said sample can be excited by means of the exciting light so as to emit secondary light. Due to the mechanical rotary movement of the sample, a deflection of the scanning light beam relative to the optical axis is not necessary so that precise positioning of the scanning ray bundle on the sample is possible.